

Using the features of the present invention, the user is able to use a computer input device in order to provide a set of orientation information and a set of information pertaining to a multiple switch device such as a hat switch. Applicant respectfully traverses the Examiner's rejection and submits that when viewing the present invention as a whole, the prior art does not teach or suggest the features of these independent claims.

Barnes et al. teach an input device that senses orientation of the input device. As correctly noted in the Office Action, Barnes et al. fail to disclose movement of a multiple switch device in different degrees of motional freedom that causes actuation of different switches in the multiple switch device. Beasley et al. teach a switch for a computer network for coupling a work station to a remotely located computer. Using the switch, keyboard and mouse commands are able to be sent to other computers in the network. Jacobs et al. teach a control box that responds to orientation of the control box. When the control box is tilted in a certain direction, (i.e. affecting the orientation of the control box) an output of the orientation is sent to the computer based on sensors in the box (col. 6., ll. 40-47).

The prior art provides no motivation or suggestion to combine an orientation sensor and a multiple switch device, wherein movement of the multiple switch device in multiple degrees of motional freedom causes actuation of different switches in the multiple switch device. As noted above, both Barnes et al. and Jacobs et al. teach orientation sensors. Thus, putting the device of Jacobs et al. in the device of Barnes et al. would merely sense orientation, and not provide an orientation sensor and a multiple switch device. Even though Jacobs et al. teach a switch configuration, that switch configuration simply measures orientation (i.e. tilting) of the control box. This type of sensing is just what is done in Barnes et al. Thus, combining these references would lead to multiple

orientation sensors for a single input device, which is undesirable, or at least unnecessary.

Furthermore, the Office Action on page 3 purports to suggest that the motivation for combining the references with Jacobs et al. is that the combination would provide faster reaction time, better operating reliability, lower production cost and enhanced human factors. Applicants respectfully traverse this suggestion. Applicants note that these advantages are presented with respect to the prior art of Jacobs et al., but do not consider either Barnes et al. or Beasley et al. The Office Action merely notes what Jacobs et al. profess and does not offer why the specified advantages would result from the combination. In fact, combining these references would provide slower reaction time and a higher production cost. Using a networking switch as described in Beasley et al. with Barnes et al. and Jacobs et al. would significantly decrease the reaction time and increase the cost of an input device. Furthermore, Jacobs et al. teach a box with a lower production cost since it is "constructed with minimum parts to optimize reliability and reduce manufacturing cost." (col. 2, ll. 52-53). Adding intricate parts of Barnes et al. would not reduce manufacturing cost. Similarly, combining Barnes et al. with Jacobs et al. would result in advice having duplicative orientation sensors which would not be a lower cost device. Ultimately, however, the combination of these prior art references simply does not lead to both an orientation sensor and a multiple switch device as recited in the independent claims of the present invention. Accordingly, independent claims 1, 16, 20 and 23 are believed to be allowable.

The Office Action further reports that claims 13-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al. in view of Beasley et al. Independent claim 13 recites receiving orientation information indicative of a physical orientation of a computer input device and receiving

rotation information indicative of rotation of a rotatable member on the computer input device. Furthermore, claim 13 recites placing data in an orientation field and in a rotation field in the data packet based on the orientation information and the rotation information.

The combination of Barnes et al. and Beasley et al. simply fail to teach orientation information and rotation information. Replacing buttons with a trackball and placing data from two fields in a data packet is not obvious since it is unclear in Barnes et al. what function a trackball would serve. Also, there is no motivation to have an orientation sensor and a rotational sensor passing through a networking switch to a remote computer. This combination is undesirable and one skilled in the art would not be motivated to make this combination. As a result, independent claim 13 is allowable over the prior art.

With respect to the dependent claims, these claims recite further patentable features when combined with their respective independent claims. As such, these claims are believed to be separately patentable and allowable over the prior art.

For the forgoing reasons, applicants respectfully request reconsideration and allowance of claims 1-20 and 22-23. Favorable action is requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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